

Press Release

## Cancer Treatment: "A need to clarify medical data ownership," HPI says

February 4, 2016

Potsdam. To make progress in cancer treatment, it is urgent to clarify who owns patient data and how this data can be better used in research. This was an action called for by Hasso Plattner Institute Director, Prof. Christoph Meinel, on the occasion of World Cancer Day on February 4th. The merging and analysis of medical data plays a central role for individualized cancer therapies. The computer scientist warned that Germany could miss out on important developments in medicine: "The digital exchange of knowledge, for which there are already advanced technologies, is making insufficient progress due to a lack of legal security," said Meinel.

With the analysis of genetic material becoming faster and more cost-effective, the challenge is growing for physicians to link dates in a more useful way thereby obtaining more accurate insights, Meinel said. At HPI scientists are working together with health experts to enable the analysis and combination of huge amounts of medical data in real-time.

"For a tumor patient in Germany this could mean the identification of similarities between the genetic fingerprint of his or her tumor with that of other patients on a global scale," said Dr. Matthieu-P. Schapranow, Program Manager of E-Health at HPI. This would lead to a more precise determination of the most promising chemotherapy for each individual patient. As serious diseases know no borders, the difficulty lies in the exchange of essential data by institutions internationally. This often only takes place today in the context of individual research projects.

The HPI scientist stresses the need to grant patients greater transparency and control over their data. "Analogous to an organ donor card, a data donor card is also conceivable" Schapranow said. This would make it possible for patients to self-manage their own disease-relevant data, such as tumor and laboratory data, for specific research purposes. In this case, they could be asked beforehand for permission to use their data, for instance via an app on their smartphone.

The anonymization of the data plays a crucial role in the acceptance of such projects. Here it is important that an inquiry never allows conclusions to be drawn about a particular individual or a small group of people in a database. "The clarification of these issues is complex, but it's essential in order to

allow patients access to the best treatment for their personal diagnosis," said Schapranow.

### **HPI Medical Topics at CeBIT 2016**

Interested visitors can see the Analyze Genomes online platform live at CeBIT 2016 in Hall 6, booth D18. Additionally, the research project SAHRA ("Smart Analysis - Health Research Access") will show how large quantities of permanently accruing patient healthcare data can be evaluated in real-time. Even though huge amounts of information has been recorded in German healthcare, it has not been sufficiently used up to now. SAHRA demonstrates how treatment-, billing-, study- and registry data—rendered anonymous to protect privacy—can be combined and made available to healthcare research and the authorized healthcare provider. At its booth, HPI also shows an IT system that detects risk factors for heart failure and evaluates them holistically. Visitors will discover how the integration and interactive analysis of relevant data in an Internet platform makes it possible for hospital physicians to determine treatments faster and to support them on a broader basis.

**Note to the Editors:** Videos on HPI's Analyze Genomes platform ([we.analyzegenomes.com](http://we.analyzegenomes.com)) can be found here <https://www.youtube.com/watch?v=r-QGqQ2wfgc> and here <http://we.analyzegenomes.com/2015/07/21/symposium-on-big-data-in-medicine-german-video-footage/>

All presentations of the HPI / Leopoldina Symposium on Big Data in medicine can be found here:

<https://www.tele-task.de/archive/series/overview/1074/>

### **Profile of Hasso Plattner Institute**

The Hasso Plattner Institute for Software Systems Engineering GmbH (<https://hpi.de>), at the University of Potsdam, is Germany's university excellence center for IT-Systems Engineering. HPI is the only university institution in Germany offering the Bachelor's and Master's degree in "IT-Systems Engineering" – a practical and engineering-oriented alternative to conventional computer science studies. Current enrollment is at approximately 480 students. The HPI School of Design Thinking is Europe's first innovation school for university students. It is based on the Stanford model of the d.school and offers 240 places annually for a supplementary course of study.

There are a total of twelve HPI professors and over 50 guest professors, lecturers and contracted teachers at the Institute. HPI carries out research noted for its high standard of excellence in its eleven topic areas. Research work is also conducted at the Potsdam HPI Research School for PhD candidates as well as at its branches in Cape Town, Haifa and Nanjing. HPI teaching and research focuses on the foundation and application of large-scale, highly complex and distributed IT systems. The development and

exploration of user-driven innovations for all sectors of life is an additional area of importance. HPI always earns the highest positions in the CHE university ranking.

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